

Application No. 10/053,720
Amendment dated November 17, 2003
Reply to Final Office Action mailed on September 15, 2003

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

Claim 1 (currently amended). An apparatus for reclaiming concrete, comprising:

- a hopper with water means for introducing water to the hopper,
- a separator having an inlet for receiving material from the hopper and a passageway for axially flowing the material therethrough;
- ~~a rotatable screen positioned in the separator;~~
- a first outlet for removing material from the separator; ~~and~~
- a second outlet for removing material from the separator; and
- a rotatable screen positioned in the passageway of the separator to screen the axially flowing material by allowing material smaller than a predetermined size to pass through the screen and to flow to the second outlet and preventing material larger than a predetermined size from passing through the screen to form screened out material, the rotatable screen further being positioned so as to centrifugally direct the screened out material to the first outlet as the rotatable screen rotates.

Claim 2 (original). The apparatus of claim 1, further comprising a pump for pumping material from the hopper to the separator.

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Claim 3 (original). The apparatus of claim 1, wherein the water means includes a water pump for pumping water to the hopper.

Claim 4 (original). The apparatus of claim 1, further comprising driving means for driving the rotatable screen.

Claim 5 (currently amended). The apparatus of claim 1, ~~further including means for centrifugally directing material in the separator towards the first outlet~~ wherein the passageway of the separator is substantially vertical and the rotatable screen has a screening surface which is substantially horizontal, the rotatable screen being positioned so as to centrifugally direct the screened out material towards the first outlet by flowing the material on the screening surface.

Claim 6 (currently amended). The apparatus of claim 1, ~~further comprising means for screening out material larger than a predetermined size in the separator~~ wherein the first outlet is between the inlet and the rotatable screen and the second outlet is downstream of the rotatable screen.

Claim 7 (original). The apparatus of claim 1, wherein the rotatable screen includes apertures of a predetermined size

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Claim 8 (original). The apparatus of claim 1, further comprising a sand tank for receiving material from the second outlet of the separator.

Claim 9 (original). The apparatus of claim 8, further comprising.

a first water holding tank; and

a separator outlet line connecting the first water holding tank to the separator

Claim 10 (original). The apparatus of claim 9, further comprising a first water holding tank outlet in the bottom section of the first water holding tank

Claim 11 (original). The apparatus of claim 9, further comprising.

a second water holding tank; and

a first water holding tank outlet line connecting the second water holding tank to the first water holding tank.

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Claim 12 (currently amended)

~~The~~ An apparatus of claim 11, further for reclaiming concrete,

comprising:

a hopper with water means for introducing water to the hopper;

a separator having an inlet for receiving material from the hopper;

a rotatable screen positioned in the separator;

a first outlet for removing material from the separator;

a second outlet for removing material from the separator;

a sand tank for receiving material from the second outlet of the separator;

a first water holding tank;

a separator outlet line connecting the first water holding tank to the separator;

a second water holding tank;

a first water holding tank outlet line connecting the second water holding tank to the first water holding tank;

a third water holding tank; and

a second water holding tank outlet line connecting the third water holding tank to the second water holding tank

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Claim 13 (original). The apparatus of claim 12, further comprising:

a fourth water holding tank; and

a third water holding tank outlet line connecting the fourth water holding tank to the third water holding tank.

Claim 14 (original). The apparatus of claim 1, further including a water pump for pumping water to the separator.

Claim 15 (original). The apparatus of claim 1, further including a baffle disposed in the hopper, the baffle having an aperture of a predetermined size.

Claim 16 (withdrawn). A method for reclaiming rock, sand and light cement material from unused, uncured concrete, comprising the steps of:

contacting the concrete with water to create a diluted concrete slurry;

screening the concrete slurry over a rotating screen to separate out rock material to form a rock material stream and sand and light cement slurry stream;

removing the sand from the sand and light cement slurry stream to form a sand residue and a light cement slurry stream; and

separating the light cement from the cement slurry stream to form a light cement residue and a water stream.

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Claim 17 (withdrawn). The method according to claim 16 further comprising the step of centrifugally directing the rock material stream away from the diluted concrete slurry.

Claim 18 (withdrawn). The method according to claim 16 further comprising the step of recycling the water stream to contact the concrete in the contacting step

Claim 19 (withdrawn). The method according to claim 16 wherein the step of removing the sand from the sand and light cement slurry stream to form a sand residue and a light cement slurry stream is effected by gravity.

Claim 20 (withdrawn). The method according to claim 16 wherein the step of separating the light cement from the cement slurry stream to form a light cement residue and a water stream is effected by gravity.

Claim 21 (new). The apparatus of claim 12, further comprising a pump for pumping material from the hopper to the separator.

Claim 22 (new). The apparatus of claim 12, wherein the water means includes a water pump for pumping water to the hopper.

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Claim 23 (new). The apparatus of claim 12, further comprising driving means for driving the rotatable screen.

Claim 24 (new) The apparatus of claim 1 wherein the screen is positioned in the passageway so as not to allow the material to pass through the passageway without being screened.